

Preliminary Best Interest Decision
For a
Long Term Timber Sale for Biomass
Utilization in Tok, Alaska
NC-1075-T
2012



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I. Introduction

A. Purpose

The purpose of this Preliminary Finding is to provide sufficient information for reviewers to ensure that the best interest of the State will be served by the Department of Natural Resources (DNR) Division of Forestry (DOF) to negotiate with Alaska Power and Telephone Company (AP&T) a 25-year timber sale contract for the harvest of woody biomass material from state lands to supply a proposed 2-4 MW power generation facility, to be located in Tok, Alaska. Specific units identified for harvest during the length of this sale will undergo their own public review process under AS 38.05.112 and AS 38.05.035.

The contract will be negotiated under the provisions of AS 38.05.118 [Negotiated Sales]. For the state to negotiate a contract under AS 38.05.118, the state must find the area proximate to the facility to have, within two years of executing the timber sale contract, a high rate of unemployment, an underutilized manufacturing capacity, and an underutilized allowable cut of state timber.

The public is invited to comment on any aspect of this Preliminary Best Interest Finding with regards to the AS 38.05.035 decision. Comments should be mailed to the Division of Forestry, 3700 Airport Way, Fairbanks, AK 99709. Comments must be received at the Division of Forestry no later than 5 PM, June 18, 2012 in order to be considered in the Final Decision of whether or not it is in the State's best interest to negotiate this sale. To be eligible to appeal the final decision, a person must have provided written comment by this date.

B. Location

The sale area includes state land within a 40 mile radius of the community of Tok, Alaska located in Township 18N, Range 13E, in the Copper River Meridian. Tok is found on the United States Geological Survey 1:63,360 Quadrangle map titled Tanacross B-4. The sale area is shown on the attached Map I - Tok Vicinity & Land Ownership.

The area overlaps two regional Native Corporations with the largest portion in the Doyon Limited region and a small section to the south along the Tok River within the Ahtna Incorporated region. Closest village corporations include Tanacross Incorporated, Dot Lake Native Corporation and Tetlin Native Corporation.

C. Planning Framework

1. CWPP

The Community Wildfire Protection Plan (CWPP) is the professionally recognized planning process for encouraging community prioritization and support of pre-wildfire protection action in a local setting. The greater community of Tok, with broad public input, developed The Tok CWPP over a two year period finishing in 2007. Although the CWPP is a not a decision

document or a State required planning document, it represents a community developed awareness of local wildfire risks and actions that could minimize the effects of wildfire on the community.

2. Scope of this Decision

The scope of this decision document is to determine if it is in the best interest (AS 38.05.035) of the State to negotiate with AP&T for the purchase of approximately 536 acres of timber (biofuels) per year from a proximate area to Tok. This document outlines the argument to reserve a defined amount of timber from the Annual Allowable Cut (AAC) in the Tok Area of the Tanana Valley State Forest and from other state lands for AP&T's proposed biomass fueled power plant.

The decision as to whether it is in the State's best interest to harvest timber on specific units of land and what type of harvest will occur will take place at a later date in separate documents referred to in AS 38.05.112 as Forest Land Use Plans (FLUPS) and the public, agencies, and other interested entities will be requested to comment on those documents at that time. The areas depicted and discussed in this document are general in nature and are based on a hypothetical economic working area developed by AP&T for their proposed biomass fueled power plant. Additional field work, agency and community consultation along with site specific analysis by the DOF will be required before the state authorizes harvest of even small portions referred in this sale. Pending adoption of this best interest finding, FLUPS will be developed and reviewed for yearly operating areas and will be required before any harvesting occurs by AP&T.

3. How State Timber Sales are Planned

The decision to offer specific timber for sale is based on a long series of planning decisions, made with public and agency input every step of the way. A Forest Land Use Plan (FLUP) for a timber sale is one of the final steps in this long planning process and is a management plan for a specific piece of state land. The planning for where timber harvest is appropriate, and where it is not appropriate, is done at a much broader scale than the FLUP. The framework for how management decisions are made for the harvest of specific timber in the Tanana Valley is as follows:

1. The Tanana Basin Area Plan (TBAP – Updated 1991) and the Tanana Valley State Forest Management Plan are broad-scale analysis of the types of land uses appropriate on different areas of state land in the Tanana basin. The *TBAP* covers approximately 15 million acres and includes lands designated forestry. The TBAP does not include lands within the TVSF. The TVSF Management Plan, however, sets the management goals for the 1.8 million acre State Forest.

The process to develop these plans included the means to openly review resource information and public concerns prior to making long-range decisions about public land management. The planning process determined how the complete range of uses would be accommodated in the

proposed sale area, including opportunities for forestry, as well as protecting fish and wildlife habitat, opportunities for recreation, and the whole range of other uses.

2. The Forest Resources and Practices Act and Regulations (FRPA) guide timber harvest activities in all commercial timber sale areas. The focus of the FRPA is the programmatic protection of the forest resources through the use of best management practices that maintain the water quality and soil integrity without significantly impairing fisheries and wildlife habitat.

3. Next, the Division of Forestry prepares a Five-Year Schedule of Timber Sales (FYSTS). The FYSTS gives the public, timber industry, and other agencies an overview of the division's plans for timber sales. They summarize information on proposed timber harvest areas, timber sale access, and reforestation plans. Five-Year Schedules are subject to public and agency review. The review helps identify issues that must be addressed in detailed timber sale planning. After review and revision, DNR uses the schedules to decide how and where to proceed with timber sale planning.

4. Finally, the Forest Land Use Plan (FLUP) is prepared. The FLUP presents detailed information on the location, access, harvest methods, duration, and proposed reforestation for each sale. The public is asked to comment at this stage, as well. By getting the best available data, combined with a series of public processes that helps us gather information from the public and other agencies, we make well-informed decisions about uses of resources on state land.

D. Objectives

1. Decrease wildland fire risk. To remove inherently combustible contiguous forest fuel types currently adjacent to the community of Tok and the development of fuel breaks as outlined in the Tok Community Wildfire Protection Plan. This will improve public safety and reduce the risk of wildland fires to property in the Tok area. Where site conditions make it favorable to do so, promote regeneration on harvested sites from relatively combustible spruce forest fuel types to a less combustible hardwood fuel timber type.

2. Meet mandate. To follow one of DNR's mandates to encourage the development of the state's renewable resources, making them available for maximum use consistent with the public interest. Sustain and promote a healthy, long-term use of forest resources in the state, by providing a secure source of timber for local use while protecting other resources such as fish and wildlife.

3. Economic benefits. To provide fiber for a biomass fueled power plant, as an alternative energy project that is meant to reduce high energy costs in the Tok area, provide local jobs, and support the local economy. This will also contribute to the State's goal of 50% renewable electricity by 2025.

4. Proactive forest management. To improve forest growth and vigor by harvesting and replacing mature stands with new healthy stands of regeneration, while protecting and maintaining other resource values. The actions authorized under this decision will adhere to

multiple-use management or as appropriate, the site specific management objectives developed by the Tanana Basin Area Plan or Tanana Valley State Forest Management Plan.

5. Habitat Improvement. To provide a mosaic of forest stand ages for a variety of wildlife species that live in the area, including some early-successional stages for wildlife that depend on habitat diversity including increased winter moose browse away from transportation corridors for public safety, and for game bird habitat including ruffed grouse.

II. Administrative Record

The DOF will maintain an administrative record regarding the decision of whether or not to negotiate a 25 year timber sale contract with AP&T. This record will be maintained at the DOF's Northern Region Office filed as NC-1075T.

III. Legal Authority

The Division is taking this action under the authority of AS 38.05.035(e) (Best Interest Finding); AS 38.05.110-120; 11 AAC 71 (Timber Sale Statutes and Regulations); AS 41.17.010-.950 and 11 AAC 95 (Forest Resources and Practices Statutes and Regulations).

IV. Discussion of Issues

A. Physical Characteristics of the Sale Area

Topography. Terrain ranges from the relatively flat Tanana River bottomland at 1,500 feet in elevation to the foothills of the Alaska Range south of the Tanana River. The peaks in the nearby Alaska Range vary from 5,000 to nearly 7,000 feet while the hills and mountains north of the Tanana River are less steep and rarely exceed 3,500 feet.

B. Current Land Use

Much of the land proposed for the sale area is in the Tanana Valley State Forest or is designated Forestry as its primary use in the TBAP (see Map II – State Land Use Designation). There is a substantial amount of land tracts near Tok and along the Alaska Highway that are designated Settlement as their primary use. Any proposed activity on these lands, as well as other lands not designated Forestry will need prior approval of DNR's Division of lands. State lands around Tok have been incorporated in the Tok Community Wildfire Protection Plan. One of the Plan's objectives is to identify, prioritize and reduce hazardous fuels within and surrounding the community. The plan focuses on reducing the spruce component of a stand to create a less flammable hardwood forest.

There are several trails including the Eagle, Tanana Crossing-Grundler, Slana-Tanana Crossing, and Tanacross-Ketchumstuk, Dennison Fork Winter, and Johnny Trails within the sale area.

Existing logging roads include both all weather roads and winter roads. A section of the abandoned Alaska Highway east of Tok serves as access to timber north of the Tanana River. The Tok River Road may serve as access for harvest operations within the TVSF. Snow machines, dog mushers and 4-wheelers also use logging roads.

Hunting, trapping, fishing, berry picking are all done in the area. Commercial guiding services use the area for both hunting and fishing. Commercial as well as personal use mushroom harvesters also use the area, especially after recent wildfires.

There exist several mining claim blocks in the area. The area is generally open to mining entry.

C. Sustained Yield and Allowable Cut

AS38.04.910(12) defines sustained yield as "the achievement and maintenance in perpetuity of a high level annual or periodic output of various renewable resources of state land consistent with multiple use". The annual allowable cut (AAC) is the calculated amount of timber that can be harvested from an area managed under the sustained yield principal.

1. Tanana Valley State Forest

In 2000, Parsons and Associates, Inc., under contract with the DOF, calculated the AAC for the Tanana Valley. Their analysis divided the land base into 4 different Management Areas of which one is Tok. Calculations were based on lands designated forestry in the Tanana Basin Area Plan and lands within the Tanana Valley State Forest. They concluded that the Tok Area AAC is 3,540 acres. The DOF subsequently adjusted the Parsons and Associates estimate to reflect somewhat longer rotation ages and a retention factor to better capture acreage retained for other values. The retention factors are described in Table 10, Chapter 2 of the TVSF Management Plan. The longer rotation ages were based on comments by professionals who thought the rotations were low for certain areas with low productivity. The result for the Tok Area is an Annual Allowable Cut of 3,059 acres.

The economic operating area for the AP&T biomass project defined for this Finding is a subset of the Tok Area and has 122,093 acres within the State Forest and 39,417 acres of state lands designated forestry as a primary use in the TBAP(see attached Map III – Operable State Lands). If the adjusted rotation age and retention factors are applied to this subset, approximately 1,328 acres are available each year for harvest.

2. Other State Land

There are also 21,823 acres of other state lands that could be harvested with concurrence of the other managing agencies. In Tok, the Divisions of Lands, Parks and Public Recreation, and Agriculture manage substantial acreage. These lands are not part of the AAC calculations since these lands are designated for conversion to other uses. For example lands identified for settlement will be subdivided and sold as residential or recreational property making them unavailable for sustainable forestry. Most of these lands are part of the Community Wildfire

Protection Plan and are proposed for treatment. Over the 25 year period of the proposed AP&T contract, a maximum of 873 acres per year could be harvested from these lands. However, in anticipation of the need to retain some cover for aesthetic and other values, the acreage has been reduced by 40% to a total potential 524 acres per year.

3. Fire

Fire plays a significant role in the ecology of the Tok Area. In the Tok Area 2,327,223 acres have burned since 1947. During that same time period, 45,071 acres of state land within the operable project area has burned - averaging 704 acres per year (see attached Map IV – Historical Fires in Operable Area).

If the annual burn acreage is reduced from to the AAC of 1,328 acres and 524 acres of other state land, we are left with 1,148 acres of state land available for annual harvest for this biomass project for the next 25 years. This does not take into account the substantial acreage of timber within fire perimeters that can be salvaged and “islands” of timber that were not burned.

As the harvest progresses, increased access and stand conversion to less fire prone species such as aspen and birch will reduce the potential for large fires and increase the acreage available for future harvest.

D. Stand Conditions

1. Existing

There are five different tree species present in the Tok Area: White Spruce (*Picea glauca*), Black Spruce (*Picea mariana*), Paper Birch (*Betula papyrifera*), Quaking Aspen (*Populus tremuloides*), and Balsam Poplar (*Populus balsamifera*).

White spruce occurs in pure stands and in mixed stands with birch, balsam poplar, aspen and black spruce. It attains its best development on well drained to moderately well drained silt and sand loams. The well-stocked white spruce type represents the most productive sites (Viereck et al. 1992. *The Alaska Vegetation Classification*). The white spruce type is considered to be the climax vegetation type on the well-drained upland sites. Over several centuries on some floodplain sites, or in upland sites in the absence of fire, white spruce types may be replaced by black spruce as permafrost develops on the site.

Black spruce occurs in pure stands but may have a mixture of white spruce and hardwoods. Black spruce occurs commonly on organic soils with poor drainage, often underlain by permafrost. Generally, pure stands of black spruce are less than 25 feet in height but some stands occurring on better sites can reach pole timber size of 5 inches diameter at 4.5 feet (DBH).

Paper birch occurs in pure stands but may have a mixture of white spruce, black spruce and other hardwoods. Birch attains its best development on well-drained silt loam soils. The stands generally result from fires where adjacent unburned birch trees spread considerable amounts of

seed on the newly exposed sites. Upland stands typically grow on aspects other than due north or due south. Stands will also grow on flood plain sites, but are usually not associated with the most actively flooding zones. In these areas balsam poplar is the dominate timber type.

Quaking aspen occurs in pure stands but may have a mixture of white spruce, black spruce and other hardwoods. Aspen attains its best development on well-drained silt loam soils, but on areas that are warmer than the birch sites. Stand development results from fire similar to birch. Aspen can also be regenerated vegetatively. This is accomplished by totally removing the overstory which stimulates the roots to send out new aboveground shoots. These shoots become new trees which are actually clones of the original stand.

Balsam poplar is generally found in nearly pure stands on floodplains, but may have a mixture of white spruce. These stands are usually found where erosion and flooding are active. These sites usually are quite productive, but are limited in nature to river bottomlands. Balsam poplar stands develop as a successional sequence that begins with alder-willow thickets on exposed sandbars. These stands eventually develop into white spruce forest.

2. Expected Regeneration Conditions

The sale will encourage the regeneration of hardwoods for use as a fire resistant buffer for the community of Tok. Where aspen is present, the total removal of the aspen and spruce overstory will promote aspen's natural reaction to grow new shoots from its roots – a common practice where aspen is managed as a forest crop.

Where birch is present, the common practice in Alaska is to rely on natural seeding from adjacent stands or seed trees left in the harvest unit. Once the unit has been harvested, the unit will be scarified to provide an optimum seedbed by exposing mineral soil.

Although the spruces are not the targeted species, both produce seed every year and will become established after a harvest. They are both shade tolerant and if given the time will outlast the shorter lived hardwoods and dominate the site.

E. Wildland Fire Management

Much of the stands in the area are the result of wildfires. After a fire, seeds from surrounding spruce and hardwoods regenerate the area. The faster growing hardwoods dominate the site for many years while the spruce remains in the understory. At this stage the stand is relatively fire resistant as hardwoods offer little fuel for a wildfire. Spruce, on the other hand, provide fuel with their low dead limbs acting as a ladder for ground based fires to reach the explosive needles in their crown. As the stand ages, these longer lived spruce eventually take over creating conditions ripe for another wildfire and starting the process all over again.

Fire management options include letting wildfires burn where they do not threaten life and property. Much of the Tok Area is managed in this manner. Fires are monitored for possible

threats. These areas result in a forest with a mosaic of forest stands ranging from young stands dominated by hardwoods to older spruce stands that have not seen fires for a hundred years.

Fire management options in and around communities; however, require a more aggressive approach to protect life and property. These fires are suppressed, creating, after many years, an older forest where fire prone spruce dominates the landscape. If these stands are left alone, they can evolve to a level where a fire becomes a catastrophic event.

Active forest management can reduce the likelihood of a wildfire becoming a threat to a whole community. The interest in biomass for fuel to produce heat and power has created a use for trees that, not so long ago, communities would pay to remove and alleviate the risk of wildfire. Tok is in a position where the local utility would pay to cut trees to fuel their proposed electrical power plant. The stands next to the community would be managed for hardwood by removing the spruce and encouraging hardwood reproduction creating a forest resembling the younger early successional forests present outside the community where wildfires are allowed to burn if they do not threaten life and property. Harvest operations further out from the community, would mimic the existing fire regime by harvesting the stands rather than allowing them to burn. As a result, the existing mosaic of multi-aged forest stands would be maintained.

As the term of the contract proceeds, more timberland is converted to hardwood, substantially reducing the chance of a catastrophic wildfire. Fuels within a hardwood stand are mostly on the forest floor. There are far fewer lower limbs (ladder fuels) on birch and aspen to allow the fire to burn to the tree tops and create a dangerous fast moving crown fire. Fires on the forest floor tend to be slow moving creeping fires because of higher moisture content and the reduced influence from wind.

F. Wildlife Habitat

The following section has been provided by the Department of Fish and Game:

“The term wildlife broadly includes birds and mammals in Alaska. Some resident wildlife is managed by the Alaska Department of Fish and Game (ADF&G) on the sustained yield basis for harvest, such as moose, caribou, and gallinaceous birds (grouse, ptarmigan). Migratory wildlife is managed by the U.S. Fish and Wildlife Service (USF&WS) under international treaties; in forested ecosystems this includes waterfowl harvest and songbird conservation. USF&WS does not list any wildlife species with a range overlapping the sale area as endangered, threatened, or as a candidate for listing. However, a no-harvest radius of 330 feet must be established to protect the nest site of bald eagles and peregrine falcons (formerly listed), and the USF&WS must be notified about nest locations discovered during sale layout.

Wildlife habitat is composed of food, water, and cover at the proper spatial scale and arrangement to meet the life requirements of a given species to live in an area. In forested ecosystems, living and dead wood provide food (e.g., shrubs and hardwood saplings are winter

forage for moose, dead wood harbors insects for birds) and structure (e.g., overhead cover against predation, cavities for nesting) at the stand level. Larger structures used by wildlife generally are found in older or dead trees and are comparatively rare on the landscape. Some late seral features require time to develop and cannot be hastened by silvicultural practices to increase rate of tree growth (structural size). For example, the biomass or volume of terricolous, fruticose lichens (especially those of the genus *Cladina*) attractive to barren-ground caribou as winter range takes >50 years to re-develop after disturbance by fire or heavy grazing and trampling (reviewed in July 2011). Potentially it takes at least the same period on wood harvest sites if lichens are crushed by equipment or if post-logging site conditions initially favor competing vegetation, such as grasses and forbs.

Habitat suitability for a species is also a factor of the arrangement of harvested and non-harvested stands and other vegetation types in a broader landscape, particularly for avian and larger mammal species that have home ranges or migratory routes across multiple stands. The quality of habitat is ultimately expressed in the fitness of animals through success in reproduction and survival. Understanding fitness requires life history studies of individual species using specific habitat types. The focus on individual species management, typical for harvested species, is considered a “fine filter” approach to maintaining a wildlife species at the desired abundance. Information on fitness is lacking for most non-harvested species, so maintaining their presence and relative abundance in a managed landscape is often sought through a “coarse filter” approach of maintaining the present (or achieving a desired) mix of stand types, stand age classes, and their spatial pattern among other vegetation types in the landscape.

Mimicking the patterns and features of natural disturbances is a first approach with a coarse filter. The future distribution of stand ages across the landscape will be affected by the desired rotation for biomass production. As stands are identified for harvest during the course of this contract period, the design of harvest unit size, shape, and position on the landscape relative to areas not harvested should include consultation with ADF&G staff to consider the needs of wildlife populations and habitat.

Roads and associated clearings are a habitat attribute that may function as a corridor or filter (hindrance or barrier) for movement by wildlife, depending on the species and its type and scale of terrestrial use (e.g., rodent or ungulate). Roads for forest management are also a major source of hunter and trapper access by highway vehicle, ATV, or snow machine from the road system near Tok. An increase in road access can increase wildlife harvest (including Dall sheep (*Ovis dalli dalli*) at higher elevations outside forest) and may require regulatory restrictions (e.g., from any bull to antler restrictions on moose) to ensure sustained yield. Aside from habitat considerations, planning of new roads on public lands, including temporary or season access, should involve consultation regarding uses with communities and the locally affected state Fish and Game Advisory Committees.

1. Existing Habitat

The existing wildlife habitat in the Tok area may be approximated from forest inventory data combined with knowledge from fitness studies on selected species or guilds (groups of species, such as insect gleaning or cavity nesting songbirds) from similar ecosystems. In lieu of fitness, data on species diversity and relative abundance may be instructive, such as point counts for migratory passerines. Species and habitat information then could be used with a statement of goals and objectives to identify Best Management Practices for maintaining or improving wildlife habitat features at the stand and landscape level with respect to biomass harvest and silviculture.

Invertebrates and non-vascular plants provide the greatest species diversity in boreal forests (Pastor et al. 1996). Below are selected vertebrate species in forested habitats managed for harvest and for which knowledge of habitat requirements is relatively better known compared with species that are not hunted.

Black and brown bear (*Ursus americanus* and *Ursus arctos horribilis*)—Both bear species occur in the sale area, although brown bears are less abundant and more likely present near subalpine terrain. Both species consume young vegetation in spring, prey on young ungulate calves, salvage ungulate carcasses, and concentrate on ripe berries and roots in fall. Forb, root, and berry production could be increased with forest harvesting. Black bears may den in lower elevation forest where suitable digging is afforded on hillsides or old river terraces.

Caribou (*Rangifer tarandus granti*)—Caribou typically occur in small groups but can aggregate at times in larger herds in the sale area. They travel through frozen marshes, burns, and other large open areas. Forested areas where biomass of lichen understory is adequate and snow is loosely consolidated to allow digging can serve as winter range. If wildland fire burns an increasing proportion of winter range for the Fortymile and Nelchina caribou herds, the area of late-seral woodland with lichen understory may decline. Mitigation of forest management effects on lichen biomass could become important if harvest of open spruce forest increases.

Grouse and ptarmigan—Three species of grouse inhabit forest the upper Tanana Valley: spruce grouse (*Falcipennis canadensis*), ruffed grouse (*Bonasa umbellus*), and sharp-tailed grouse (*Tympanuchus phasianellus*). Spruce and ruffed grouse nest in mid-late seral forests, with brood rearing habitat optimal in adjacent shrub or hardwood stands in dense early-seral regeneration, proving concealment or escape from predators. Young birds eat insects for protein and transition to an adult grouse diet of primarily leaves in spring and summer, berries in fall, and woody buds in winter (and spruce needles for spruce grouse). Sharp-tailed grouse inhabit more open habitats such as grassland, agricultural fields, woodland forest, or recent burns. During winter, rock or willow ptarmigan may occupy forested areas to consume buds.

Lynx (*Lynx canadensis*)--This carnivore preys primarily on snowshoe hares and grouse, and its abundance tracks these prey species. Maternal dens are commonly in or near deadfall.

Marten (*Martes americana*)—Martens eat primarily small mammals and berries and occasionally snowshoe hares. Abundance is correlated spatially with small mammal biomass, which often peaks with forb and grass abundance after wildland fire. Deadfall provides hunting access to subnivean spaces, particularly in burns. Maternal dens are commonly in or near deadfall or in larger tree cavities.

Moose (*Alces alces*)—Moose forage on a wide range of aquatic plants, forbs, and woody plant leaves during summer to gain nutritional reserves as muscle and fat but exist almost entirely on browse during winter, generally a period of declining nutritional reserves. Moose often concentrate on winter range where hardwood or willow regeneration is abundant in active river floodplains and recent burns. Forest management may increase woody forage in certain circumstances and attract local moose to sites where they are more visible to hunters for a few years, but an increase in the moose population may be restricted by predation. Increasing forage near highways could increase risk of vehicle collisions during migration or winter concentration. Migratory moose use lower elevations of the Tok River drainage during winter (NC-837-T FLUP, amended 2003).

Snowshoe hare (*Lepus americanus*)—Abundance of this keystone species fluctuates sometimes dramatically on a roughly decadal basis, influencing local and regional abundance of several mammalian and avian predators. Dense early-mid seral hardwoods, shrubs, and spruce regeneration provide optimal forage and concealment cover from predators, but hares may be forced to inhabit poor quality habitats during peak abundance.

Wolf (*Canis lupus*)—Wolves are a primary predator of caribou and moose and broadly occupy the sale area. Their relative abundance is correlated spatially with ungulate density. Wolves are sought by trappers as a fur resource, and their abundance may be controlled by management activities to increase abundance of caribou and moose.

2. Projected Habitat

Fire suppression and limited timber markets presently hinder maintenance of early seral hardwood forest and shrubs for wildlife habitat near settlements in interior Alaska (Haggstrom and Kelleyhouse 1996). Future amount and distribution of habitat in the sale area is expected to be influenced primarily by forest management (including hazardous fuels reduction) and wildland fire on upland sites and fluvial action in active riparian areas. Mineral development and other surface activities may also influence vegetation. Trends in climate may influence the rate of vegetative response to disturbance through potential effects on nutrient cycling, growing season length, soil moisture, and other ecological effects.

Biomass harvest will provide an opportunity to create stand type and age class diversity in areas where wildland fire suppression has maintained contiguous spruce forest, particularly near communities. However, biomass harvest will differ from the present sawlog harvest by utilizing more hardwoods and smaller diameter spruce trees and by salvage of standing dead wood and

tops from larger trees. Regeneration of shrubs and hardwoods on harvested spruce sites may require mechanical or prescribed fire scarification where grass (especially *Calamagrostis canadensis*) exists and its dense regeneration can hinder woody species. Maintenance of late-seral features (snags, cavity trees, spruce rust brooms), particularly the larger, more rare features in the landscape, will require operator education to identify them for avoidance. Open canopy spruce forest with dense lichen understory will require identification during sale unit layout to evaluate the potential for minimizing lichen damage in caribou migration corridors or on winter range. This may be important in the context of recent fire history where lichen biomass was greatly reduced.

By understanding the present conditions and forecasting future scenarios based on clearly stated assumptions, it will be possible to monitor the effects of road networks, biomass harvest, and forest regeneration on wildlife populations and habitat. Improved understanding of how vegetation and wildlife species respond to treatments at the stand and landscape scales will allow adaptive management to incorporate scientific information over time to modify Best Management Practices. Public education during the planning process will allow informed engagement on policy decisions.”

G. Fisheries and Water Quality

Anadromous and resident fish streams will be managed in accordance with AS 41.17.118. *Riparian standards for state lands.*, AS 41.17.950. *Definitions.* and the regulations 11 AAC 95.260. *Riparian standards.* The Habitat Division of the Department of Fish and Game will be consulted during the process of writing specific Forest Land Use Plans. Proper habitat permits will be secured if stream crossings are needed.

In addition to the riparian standards required under the Forest Resources and Practices Act, the following water bodies have special management zones required by the Tanana Valley State Forest Management Plan. The width of the zone is determined on a case-by-case basis but in no case will it be less than 100 feet:

Tanana River	Sand Creek	Bear Creek
Billy Creek and Associated Lakes	Fish Lake	Mansfield Creek and Associated Lakes
Mansfield Lake	Robertson River	Round Lake
T Lake	Porcupine Creek	Clearwater Creek
Little Tok River	Tok River	

The Forest Practices Act and its Regulations establish standards for timber harvests and forest road construction and maintenance. These standards are designed to minimize the potential for adverse effects to water quality due to forest harvesting activities. Issues specific to a harvest unit will be addressed in subsequent FLUPs.

H. Erosion

The Forest Practices Act and its Regulations establish standards for timber harvests and forest road construction and maintenance. These standards are designed to reduce the likelihood of erosion caused by road construction or harvesting equipment. Issues specific to a harvest unit will be addressed in subsequent FLUPs.

I. Subsistence

The harvested units will revert to younger early successional plant species which will, in turn, support wildlife adapted to those plant communities such as moose and ruffed grouse, allowing for an increased population and increased hunting opportunity. Required riparian and wetland zones will keep habitat required by species needing an older forest. Due to the varied habitats, trapping success should not change. Berry picking should increase as stands are opened up allowing berry plants to get established. With adherence to the FRPA and its protection of water bodies, fishing should not be affected by the proposed harvest activities.

Roads resulting from harvest operations will increase access whether the roads are closed or kept open for subsequent forest management activities. Highway vehicles may not be able to use the closed roads but ATV's, snow machines, and mushers will take advantage of the closed roads rather than have to brush their own trails.

J. Recreation

Increased access will be the primary impact to recreation. The roads associated with the harvest will allow people to access new streams, hunting and berry picking areas. Closed roads will be used by ATV's, snow machines, skiers, mushers and hikers.

K. Scenic Resources

A significant portion of the harvest associated with the CWPP will be proximate to the community of Tok and will initially be visible. The targeted species for reforestation near the community is aspen. Aspen is a fast growing tree and should quickly reforest the site. Harvest units outside the community will be designed with irregular borders following natural terrain breaks and stream corridors. These units, once revegetated, will look much like the past burns scattered throughout the region.

L. Cultural Resources

Besides the several historical trails in the operational area, there is the potential for archeological sites. Prior to committing to individual harvest areas, the DOF and the Office of History and Archaeology/ State Historic Preservation Office (SHPO) will develop an assessment model for the overall project area covered by this BIF. This model will be used to focus and prioritize field surveys. In addition, SHPO will have the opportunity to review each individual Forest Land Use Plan.

During the course of activities associated with this sale, cultural resources (historic, prehistoric, and archaeological sites, locations, remains, or objects) may be inadvertently discovered. Should such a discovery occur, the site shall be protected from any disturbance, and DOF will contact SHPO immediately to evaluate whether the resources should be preserved in the public interest and their concurrence shall be requested for continuing improvements (as specified at Section 41.35.070[d]).

1. Burials/Human Remains

If burials or human remains are found, all land-altering activities that would disturb the burial or remains shall cease and measures will be taken to protect it in place. The Alaska State Troopers, State Historic Preservation Office (SHPO), and the State Medical Examiner shall be contacted for further guidance pursuant to State laws and protocols pertaining to the discovery of human remains within the State of Alaska.

M. Harvest Methods

Harvesting forest biomass for energy is relatively new to Alaska. For the project to succeed, systems using mechanical falling and skidding is the only method that can efficiently and economically harvest stands with large number of small diameter stems. There are systems developed in Canada and Scandinavia specifically for small diameter wood which may fit the conditions for this project.

Once the trees are skidded or forwarded to a roadside, the trees can then be loaded on conventional trucks to be processed at the energy plant or chipped in the woods and loaded in chip vans and delivered to the plant ready for the boilers.

By processing the wood at the plant, conventional logging trucks and loaders could be used. This method would not lend itself to whole tree harvesting where the limbs as well as the bole are utilized. An in-the-woods delimber and ample log storage space at the plant would be needed for this system.

Chipping in the woods is a common approach for this type of operation but not normally done in Alaska. Whole trees are chipped and then hauled to the plant. A mobile chipper, chip vans, and a chip storage facility at the plant would be required for this system. Road construction standards would need to be more stringent than normal logging roads because chip vans have less clearance and are less tolerant of bumps and sudden changes in grade.

N. Transportation

1. Characteristics

Roads used to access the harvest areas will need to include existing maintained and unmaintained roads as well as existing and new forest roads (see attached Map V – Tok Transportation-Existing and Proposed). The Tok Cut-Off, the Alaska Highway, and the Taylor Highway (Alaska

Routes 1, 2, &5) are the major state highways serving the Tok area. Other secondary roads serving subdivisions will be used to access stands for treatment proposed by the local CWPP. Unmaintained roads such as portions of the Eagle Trail and abandoned Alaska Highway will need to be reconditioned prior to use. Over the years, the DOF has also constructed roads as part of its timber sale program. New secondary and spur roads will be developed off of these existing roads. Some potential routes for these new roads are shown on the attached map.

New road construction will include both winter and all weather roads. Winter roads are generally used where terrain such as muskegs make it very difficult to build conventional roads. Winter roads are built on frozen ground, only removing material that is necessary for a smooth road at an acceptable grade. Snow and ice bridges are typically used for winter roads. All weather roads, on the other hand, require much more excavation and movement of material to get a good running surface at an acceptable grade. Log or manufactured bridges and culverts are required for this type of road construction. These roads are much more expensive but they can be used year round.

2. Management

a. Access

Concern for public safety may require limited access to forest roads during active harvest operations.

b. Closure

Once forest roads are deemed not necessary for future forest management activities, they will be closed as required under 11 AAC 95.320 [Road Closure]. Closed roads require the removal of drainage structures, the shaping of roads to provide drainage and prevent erosion, and preventing their use by highway vehicles.

Decisions to close specific roads and limit road access will be made during the FLUP process. Agencies and the public will have the opportunity to comment on these actions at that time.

O. Mining Impact

Mining is a subsurface land interest. Timber harvest is allowed on these lands. The new road access from this harvest can be of benefit to existing and future mining claims.

Individual mining claims will be addressed as site specific FLUPs are presented for review.

V. Economics and Market Conditions

A. Current Regional Timber Prices

The recent timber sale in Fairbanks sold sawlogs for \$61.17/ MBF. This equates to approximately \$7.43/ green ton. Fuel cordwood stumpage in Fairbanks sold for \$20.71/ cord which is equivalent to \$4.23/ green ton.

Superior Wood Pellets is currently paying operators approximately \$40/ green ton for residual round log wood delivered to their pellet mill in Fairbanks.

Several small mill operators and firewood suppliers operate in the Tok area. Young's Timber Inc. has a 10 year contract with the DOF expiring in 2018 for \$40/ MBF for saw logs and \$8 per cord for low grade wood. The amount required for this commitment is relatively small compared to the proposed AP&T proposal and is exclusive of the ground proposed for the AP&T project.

B. Method of appraisal

This contract will be negotiated under the provisions of AS 38.05.118 and 11 AAC71.055. Other provisions of the Alaska Statutes Title 38 (Public Land) and Alaska Administrative Code Title 11 (Natural Resources) are applicable as well in forming the terms of the contract with a purchaser of state resources. Per 11 AAC 71.092 (Pricing for sale of timber)...

(c) ...“the department will sell timber on the basis of its appraised price. The appraised price is a formal determination of the timber's fair market value and is determined by an appraisal conducted by the commissioner. The commissioner will, in the commissioner's discretion, select and apply one or more appraisal methods to determine the appraised price of the timber. Appraisal methods include, at the discretion of the commissioner, comparative market or transactional evidence; end or residual values; other methods customarily used for appraising timber; or another method designed to yield fair market value as determined by the commissioner. To make the appraisal, the commissioner will, in the commissioner's discretion, use costs, prices, values, and other information obtained from prudent operators, state and federal agencies, industry associations, price or market reporting services, or other sources that the commissioner considers reliable.

(d) The commissioner will, in the commissioner's discretion, adjust the appraised price or adjust the method of appraisal under (c) of this section to allow for operating costs. Operating costs that the commissioner may allow include, but are not limited to, costs for activities such as recovering, removing, handling, storing, or transporting the timber.

In addition to the initial appraisal of the timber value the contract rate will be redetermined at a minimum of every five years per AS 38.05.118.”

The DOF believes that it is in the state's best interest to appraise this sale specifically as follows:

At a minimum the DOF will cover its costs of preparing and administering the sale through the price it receives for the timber. These costs will include the costs of designing, engineering, laying out the harvest and transportation systems along with estimating the timber volume and

values, and developing the specific FLUPs. Other agency costs not specifically paid by the legislature in designated or operating funds that are needed to ascertain site specific issues that affect the long term viability of the land and resources will also be included. The subsequent administration of the sale to protect the State's interest by DOF will be as well. At this time the DOF estimates it will require the addition of one full time Forester II and one forest technician.

The timber will be appraised at fair market value at least every 5 years. A standard for wood utilization will be developed cooperatively with AP&T that reflects the utilization in the Tok area, industry standards, FRPA and other environmental requirements. The DOF will estimate the highest and best use of the products in the operating area. Based on transactional evidence and market demand for saw logs and cordwood (round log products), the DOF will set the stumpage rate for those products. The round log products will be compensated for at that rate. The DOF will factor in local demand and economies of scale in its decision to differentiate the round log products from the remainder of the biomass in a given operating area. AP&T will use the log at that price for round wood products or biomass energy production. The remaining raw biomass removed from the operating area will be appraised in a similar manner if multiple markets exist and will, at a minimum, recover the remaining costs to the State of preparing and administering the sale not covered by the round log rate. It is anticipated that the method of payment will be based on a weight scale basis.

C. Biofuel

Biofuel is generally considered a residual product of timber operations in most parts of the country. Biofuels come in a variety of forms. The most common are byproducts of sawmill and land clearing operations. Minimum handling, transportation and processing of the material is typically an underlying theme along with avoidance costs of disposal of the material. With increasing costs of petroleum based energy, industry has been able to increasingly justify using what once was considered purely a waste product and recover basic costs within varying economic working circles. With increasing petroleum costs, harvesting costs increase as well but the added use of the material has to a certain extent improved the technology of handling the material and in areas where quantities meet economies of scale, is increasingly used. These "working circles" typically are products of land owner end goals and the local cost of energy. The shift in the use of forest biomass in the past 3 years has been additionally stimulated particularly in the lower 48 with various federal government incentives.

1. Tok Biofuel

Based on timber stand inventories, the DOF estimates that timber harvested as part of this proposed operation could produce saw logs, cordwood and residual biofuels. The operating area of this sale area will encompass a variety of stand sizes and types. The majority of the wood fiber harvested will take the shape of what would in the past have been considered sub merchantable due to its smaller size. In 2007 the DOF started a pilot study looking at available fiber and its net energy value in a variety of timber types. Based on the Tok sampling, indications are that the stands generally contain more weight in fiber and thus more BTUs of potential energy than traditionally documented. Traditional volume tables for these timber types focused on saw log

and cordwood products; whereas recent work has included all trees in the stand. Whole tree harvesting systems is the focus of this study where not just the bole of a tree is used but also the limbs, tops, and bark are used for fuel.

An initial byproduct of this work was the construction of the TOK School wood heat boiler that is powered by whole tree chipping and wood waste from the local area. The initial goals being to reduce energy heating costs and wildfire risk near the school and community. A secondary phase of the project added electrical generation capacity to the system to reduce their monthly electrical costs of \$30,000. Indications over its first year of operation, is that it will achieve its goals. The DOF has encouraged the processes by guiding and encouraging the location of harvesting operations within the community on private and public land to mitigate wildland fire. The DOF estimates the school needs 40 acres per year to supply its boiler. Currently there is a several year supply of decked wood harvested as part of a fuel reduction project available for the school boiler. The 40 acres required is relatively small compared to the proposed AP&T project and is exclusive of the ground proposed for the AP&T project.

In 2010 AP&T starting looking into displacing diesel fuel for the generation of electrical power in Tok with a combined heat and power facility (CHP). The study is funded partially through a funding grant from the Alaska Energy Authority (AEA). The study is ongoing and has precipitated AP&T's request for a biofuel timber supply from the State land base in the Tok area addressed by this best interest finding.

As presented to the DOF, AP&T is developing several potential business models for the generation of power in Tok. With most power generation, and in particular with biofuel, low grade heat is a byproduct of the electrical generation process. A variety of things can be done with it such as building heating or drying facilities adjacent to the facility. Recovering heat as part of the plan increases the overall efficiency and economics of the plan. Secondary opportunities also are being looked at for densified fuels generated from some of the wood stream that would enter the facility. The goal of densifying the fuel typically is to make an economically transportable fuel that has an increased amount of recoverable heat per unit of weight along with achieving a more efficient burn where it is ultimately used. Examples of densified fuels are pellets, fuel bricks, briquettes or torrefied wood. Once produced it could be sold as a commodity. Packaging multiple biofuel products (electricity, heat, densified wood) together has the potential to ultimately lower delivered electrical rates to the consumer in Tok when considered as a whole. On the other hand it also introduces dependency that may at some point in the future affect the viability of the project if the market conditions change. The DOF position towards symbiotic byproducts will be one of encouraging local power use in Alaska as long as it meets the test of the open market. Significant production of biomass products not associated directly with Alaskan power generation needs will not be considered as appropriate in the frame of this contract with AP&T.

D. Comparative Energy Costs

1. Existing Conditions

Electrical power in the Tok area is generated locally by a relatively large diesel generation plant. In Fiscal Year 2011 Tok calculated residential electrical rates were at 51.02 cents / KWHR. The legislature through the Power Cost Equalization (PCE) program offset that cost by 32.56 cents /KWHR. The PCE is applicable to rural residential users consuming less than 500 kWh/s per month of electricity. Other rural users such as State and federal offices, commercial entities and schools pay as determined by the rates developed by the utility under the oversight of the Utility Regulatory Commission (URC). The rates developed by the URC reflect the cost of electricity in a regulated environment for profit driven utility companies in Alaska. The scope of the regulation limits the profit and guides a number of other parameters that are beyond the scope of this document. Detailed information on the URC can be found on their web site <http://rca.alaska.gov/RCAWeb/home.aspx>. Efficiency upgrades have also been ongoing to the Tok diesel generators since 2006.

2. Alternative Sources of Energy Considered

AP&T has looked at a variety of energy sources in efforts to decrease cost. Alternatives considered include natural gas, hydro, wind and biofuels. Natural gas is not likely to be an alternative until a gas line is in the proximity of the area; natural gas's energy density to price is less than diesel and likely will not be competitive without a proximate and low cost source. The hydro potential of Yerrick Creek was examined and initial indication was that it could be economically practical to build a "run of the river" facility to provide power for a portion of the year that the creek runs (May- October). Peripheral issues of land ownership during permitting and licensing have tabled this project. Another "run of river" site is also being considered near Clearwater Creek and was recently notified in the FERC process by AP&T. Wind and solar resources have been examined but indications are that the resources are not economically viable relative to the demand.

E. State Energy Policy

"AS 44.99.115. Declaration of state energy policy" was signed on June 16, 2010 by Governor Sean Parnell.

"The State of Alaska recognizes that the state's economic prosperity is dependent on available, reliable, and affordable residential, commercial, and industrial energy to supply the state's electric, heating, and transportation needs. The state also recognizes that worldwide supply and demand for fossil fuels and concerns about global climate change will affect the price of fossil fuels consumed by Alaskans and exported from the state to other markets. In establishing a state energy policy, the state further recognizes the immense diversity of the state's geography, cultures, and resource availability. Therefore, it is the policy of the state to

(2) encourage economic development by

(A) promoting the development of renewable energy resources, including geothermal, wind, solar, hydroelectric, hydrokinetic, tidal, and biomass energy, for use by Alaskans and for export;

(C) working to identify and assist with development of the most cost-effective, long-term sources of energy for each community statewide;

(D) creating and maintaining a state fiscal regime that encourages private sector development of the state's energy resources;”

F. Future Electrical Rate Determination

The DOF does not set electrical rates. The development and long term viability of biofuel CHP facilities is a product of operating and capital costs being less than revenue. From the DOF’s role as steward of the State’s forest resource it is statutorily required to seek fair market value minus the costs of extraction. At present time, AP&T has indicated they will achieve electrical rates that are comparable or lower than predicted diesel generated electricity rates. AP&T is a regulated utility and must account for its costs in an URC defined manner. In the event that the CHP facility is not required to be certified by or regulated by the URC, additional margins exist for renewable energy facility owners to recover costs. The purpose of these State and Federal exemptions is to promote growth in the field of renewables during a time of emerging technology and markets. The prime value to the community and the State comes in terms of lower cost power along with a potentially decreased fire risk. It is in best interest of the State for the cost of power in Tok to be at a reasonable rate as long as environmental factors are safely mitigated and fair market prices for commonly used forest products are met. In the event that one of these variables becomes unbalanced, the interests of the state will likely not be served and the arrangement will be modified or terminated.

G. Jobs

1. Plant

The construction of the facility will contribute an influx of capital and manpower in the community over one to two years. The actual CHP complex will likely require an increased number of personnel to operate over a diesel generation facility primarily due to the material handling requirements and added machinery. These personnel will be semi-skilled laborers and there may also be a need for trained technicians and mechanics to run the facility in addition to those needed at the existing power plant. The numbers required will ultimately depend on the final design.

2. Harvesting

The harvesting operations will likely employ six to eight semi-skilled laborers, loggers and mechanics year round to support the operation. Some road building capability will also be added to the employment base. The roads will generally be minimal in scope due to the use of winter road construction and when constructing all weather roads on well drained sites, the ground is generally capable of supporting truck traffic during the majority of the year with the removal of the duff layer.

3. Support

The operation will require a number of additional support staff that may be accommodated by the existing methods of business in the region. The added machinery and manpower will likely generate some economic spin off to the local community, Fairbanks and Anchorage.

H. Wildland Fire Historical Costs and Projection

Since 1947 the Tok Area has had 658 fires on 2,327,223 acres of state, federal, native and private lands. That is over 10 fires per year. These fires averaged 3,537 acres per fire or 36,363 acres per year.

During the same 64 years, the proposed operable area has averaged over 3.5 fires per year ranging in size from less than an acre to over 32,000 acres.

All but 1,500 acres of the operable area is in Critical, Full, or Modified Protection. These protection levels require aggressive firefighting strategies during the most fire prone part of the season. Fires in Limited Protection, however, are usually monitored and are only fought if they threaten life and property. These protection levels are discussed and agreed by all the different private, native, state and federal land managers.

Fighting fires is expensive. For example, the last large fire in Tok was the 18,000 acre Eagle Trail Fire in 2010 and cost the state \$9,295,884. Costs associated with large fires threatening communities vary between \$500,000 and \$20,000,000. These fires are typically fueled by white and black spruce and are very difficult to control.

Once aircraft and additional crews and equipment are ordered, costs quickly escalate. Following are estimated costs for various resources:

Cost for a load of jumpers: \$9,000/day

Cost for a helicopter and bucket: \$3,500/day plus \$1,250/hour

Cost of air tanker: \$8,995/day plus \$3,000/flight hour

Cost of Type 1 crew: \$9,310/day

Cost of Type 2 crew: \$6,090/day

A managed forest will create conditions favorable to the reduction of highly flammable fuels and to more effective and efficient initial response to new fires. The breakup of fuel types by harvesting older spruce stands and encouraging hardwood regeneration will reduce the threat of crown fires and drop fires to the ground where they are much more manageable with existing personnel.

Roads are constructed during timber harvest operations allowing firefighters access to areas they would normally have to hike, use jumpers, or use expensive helicopters or air tankers. Even closed roads act as much better access than having to hike through heavy brush. Quick response allows firefighters to contain a fire early – reducing the probability of the fire reaching a size where local resources are unable to contain the fire and additional crews are needed.

I. Economic Effect on Current and Projected Forest Resource Use

The sale of forest biomass to AP&T is expected to utilize a little over half of the annual harvest from the economic operating area identified for this AP&T biomass project. The total annual acreage available for harvest in this operating area is 1,852. Historically, 704 acres in the operable area is burned annually. Current timber sales in the area use 114 acres per year of which 34% is salvaged timber from previous burns reducing the demand for green timber to 75 acres per year. In addition, it is expected for the Tok School biomass facility to require an additional 40 acres per year to produce heat and electricity. Removing these historical and anticipated needs from the available acreage in this biomass operating area leaves 1,033 acres for additional sales. The estimated need for the AP&T project is 536 acres. This would leave an additional 497 acres per year in the operable area for future projects.

This analysis does not include other acreage outside of the proposed AP&T operating area or acreage that can be salvaged after a burn nor the timber within a fire perimeter that was left unburned. This additional acreage can be substantial and could add considerable acreage to future management options.

VI. Alternative Actions

1. Negotiate an agreement to the state's best interest under AS 38.05.118 with AP&T for the harvest of approximately 536 acres/year of timbered land to provide biofuels for an electrical cogeneration plant located in the vicinity of Tok.
2. Not enter a negotiated agreement at this time with AP&T for the request for raw wood supply. Offer biofuels on the open market from timbered land each year in a manner outlined in AS 38.05.110-120 (competitive sale disposal procedure) notwithstanding AS 38.05.118 that meets anticipated market demand.

VII. Preliminary Finding and Best Interest Decision

The purpose of this finding is to determine if it is in the best interest of the Department of Natural Resources, Division of Forestry, to negotiate an agreement with AP&T to harvest approximately 536 acres/ year of timbered land to provide biofuels for an electrical cogeneration plant in the vicinity of Tok, Alaska. After due consideration of all pertinent information and alternatives, the DNR has reached the following **Preliminary Finding: To proceed with negotiations as proposed in Alternative 1.** In addition, the DNR finds that this preliminary finding satisfies the objectives as stated in this document and it is in the best interest of the State to proceed with this action.

Signature on File

Mark Eliot

Northern Region Forester

Date

VIII. Abbreviations

ADFG: Alaska Department of Fish and Game

AAC: Annual Allowable Cut

BMPs: Best Management Practices

DEC: Department of Environmental Conservation

DNR: Department of Natural Resources

DOF: Division of Forestry

DOT/PF: Department of Transportation/Public Facilities

FF: Final Finding

FLUP: Forest Land Use Plan

FRPA: Alaska Forest Resources and Practices Act

FYSTS: Five Year Schedule of Timber Sales

SHPO: State Historic Preservation Office

TBAP: Tanana Basin Area Plan

TVSF: Tanana Valley State Forest

IX. References

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Viereck, L.A.; Dyrness, C.T.; Batten, A.R.; Wenzlick, K.J. 1992. *The Alaska vegetation classification*. Gen. Tech. Rep. PNW-GTR-286. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 278 p.

A. Links to Planning Documents

Tanana Basin Area Plan

<http://dnr.alaska.gov/mlw/planning/areaplans/tanana/>

Tanana Valley State Forest Management Plan

http://forestry.alaska.gov/management/tvsf_final_plan.htm

Parsons and Associates Sustained Yield Report

http://forestry.alaska.gov/pdfs/sustn_yld.pdf

Annual Allowable Cut Report – DOF

<http://forestry.alaska.gov/pdfs/aac.pdf>

X. Statutes and Regulations

A. Appeal and Request for Reconsideration Regulations

Note: "Appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign. "Request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned. [11 AAC 02.900, Definitions, below.] The Final Finding will be signed by the commissioner.

TITLE 11. NATURAL RESOURCES.

CHAPTER 02. APPEALS.

Section	Section
10. Applicability and eligibility	50. Hearings
15. Combined decisions	60. Stays; exceptions
20. Finality of a decision for purposes of appeal to court	70. Waiver of procedural violations
30. Filing an appeal or request for reconsideration	80. (Repealed)
40. Timely filing; issuance of decision	900. Definitions

11 AAC 02.010. APPLICABILITY AND ELIGIBILITY. (a) This chapter sets out the administrative review procedure available to a person affected by a decision of the department. If a statute or a provision of this title prescribes a different procedure with respect to a particular decision, that procedure must be followed when it conflicts with this chapter.

(b) Unless a statute does not permit an appeal, an applicant is eligible to appeal or request reconsideration of the department's decision on the application. An applicant is eligible to participate in any appeal or request for reconsideration filed by any other eligible party.

(c) If a statute restricts eligibility to appeal or request reconsideration of a decision to those who have provided timely written comment or public hearing testimony on the decision, the department will give notice of that eligibility restriction as part of its public notice announcing the opportunity to comment.

(d) If the department gives public notice and allows a public comment period of at least 30 days on a proposed action, and if no statute requires opportunity for public comment, the department

may restrict eligibility to appeal or request reconsideration to those who have provided timely written comment or public hearing testimony on the proposed action by including notice of the restriction as part of its public notice announcing the opportunity to comment.

(e) An eligible person affected by a decision of the department that the commissioner did not sign or cosign may appeal the decision to the commissioner within the period set by 11 AAC 02.040.

(f) An eligible person affected by a decision of the department that the commissioner signed or cosigned may request the commissioner's reconsideration within the period set by 11 AAC 02.040.

(g) A person may not both appeal and request reconsideration of a decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority: AS 03.05.010 AS 38.04.900 AS 38.08.110 AS 41.15.020 AS 44.37.011
AS 29.65.050 AS 38.05.020 AS 38.09.110 AS 41.17.055 AS 46.15.020
AS 29.65.120 AS 38.05.035 AS 38.50.160 AS 41.21.020 AS 46.17.030

11 AAC 02.015. COMBINED DECISIONS. (a) When the department issues a combined decision that is both a final disposal decision under AS 38.05.035(e) and any other decision, including a disposal decision combined with a land use plan decision, or a disposal decision to grant certain applications combined with a decision to deny others, the appeal process set out for a disposal decision in AS 38.05.035(i) - (m) and this chapter applies to the combined decision.

(b) A decision of the department may include a statement that a final consistency determination under AS 46.40 (Alaska Coastal Management Program) has been rendered in conjunction with the decision. A person may not, under this chapter, appeal or request reconsideration of the final consistency determination, including a requirement necessary solely to ensure the activity is consistent with the Alaska coastal management program as approved under AS 46.40. (Eff. 9/19/2001, Register 159)

Authority: AS 29.65.050 AS 38.04.900 AS 38.05.035 AS 38.09.110
AS 29.65.120 AS 38.05.020 AS 38.08.110 AS 38.50.160

11 AAC 02.020. FINALITY OF A DECISION FOR PURPOSES OF APPEAL TO COURT. (a) Unless otherwise provided in a statute or a provision of this title, an eligible

person must first either appeal or request reconsideration of a decision in accordance with this chapter before appealing a decision to superior court.

(b) The commissioner's decision on appeal is the final administrative order and decision of the department for purposes of appeal to the superior court.

(c) The commissioner may order or deny a request for reconsideration within 30 calendar days after issuance of the decision, as determined under 11 AAC 02.040(c)-(e). If the commissioner takes no action during the 30-day period, the request for reconsideration is considered denied. Denial of a request for reconsideration is the final administrative order and decision of the department for purposes of appeal to the superior court.

(d) If the commissioner timely orders reconsideration of the decision, the commissioner may affirm the decision, issue a new or modified decision, or remand the matter to the director for further proceedings. The commissioner's decision, other than a remand decision, is the final administrative order and decision of the department for purposes of appeal to the superior court. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority: AS 03.05.010 AS 38.04.900 AS 38.08.110 AS 41.15.020 AS 44.37.011
AS 29.65.050 AS 38.05.020 AS 38.09.110 AS 41.17.055 AS 46.15.020
AS 29.65.120 AS 38.05.035 AS 38.50.160 AS 41.21.020 AS 46.17.030

11 AAC 02.030. FILING AN APPEAL OR REQUEST FOR RECONSIDERATION.

(a) An appeal or request for reconsideration under this chapter must

(1) be in writing;

(2) be filed by personal service, mail, fax, or electronic mail;

(3) be signed by the appellant or the appellant's attorney, unless filed by electronic mail; an appeal or request for reconsideration filed by electronic mail must state the name of the person appealing or requesting reconsideration and a single point of contact to which any notice or decision concerning the appeal or request for reconsideration is to be sent;

(4) be correctly addressed;

(5) be timely filed in accordance with 11 AAC 02.040;

(6) specify the case reference number used by the department, if any;

(7) specify the decision being appealed or for which reconsideration is being requested;

(8) specify the basis upon which the decision is challenged;

(9) specify any material facts disputed by the appellant;

(10) specify the remedy requested by the appellant;

(11) state the address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed; an appellant may also provide a telephone number where the appellant can be reached during the day or an electronic mail address; an appeal or request for reconsideration filed electronically must state a single address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed;

(12) identify any other affected agreement, contract, lease, permit, or application by case reference number, if any; and

(13) include a request for an oral hearing, if desired; in the appeal or request for reconsideration, the appellant may include a request for any special procedures to be used at the hearing; the appeal or request for reconsideration must describe the factual issues to be considered at the hearing.

(b) At the time an appeal is filed, and up until the deadline set out in 11 AAC 02.040(a) to file the appeal, an appellant may submit additional written material in support of the appeal, including evidence or legal argument.

(c) If public notice announcing a comment period of at least 30 days was given before the decision, an appellant may not submit additional written material after the deadline for filing the appeal, unless the appeal meets the requirement of (a) of this section and includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

(1) comments already received from the appellant and others;

(2) whether the additional material is likely to affect the outcome of the appeal;

(3) whether the additional material could reasonably have been submitted without an extension;

(4) the length of the extension requested;

(5) the potential effect of delay if an extension is granted.

(d) If public notice announcing a comment period of at least 30 days was not given before the decision, an appellant may submit additional written material after the deadline for filing the appeal, if the appeal meets the requirements of (a) of this section and includes a notice of intent to file the additional written material. The department must receive the additional written material within 20 days after the deadline for filing the appeal, unless the appeal also includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

- (1) comments already received from the appellant and others;
- (2) whether the additional material is likely to affect the outcome of the appeal;
- (3) whether the additional material could reasonably have been submitted without an extension;
- (4) the length of the extension requested;
- (5) the potential effect of delay if an extension is granted.

(e) At the time a request for reconsideration is filed, and up until the deadline to file a request for reconsideration, an appellant may submit additional written material in support of the request for reconsideration, including evidence or legal argument. No additional written material may be submitted after the deadline for filing the request for reconsideration.

(f) If the decision is one described in 11 AAC 02.060(c), an appellant who believes a stay of the decision is justified may ask for a stay as part of the appeal or request for reconsideration. The appellant must include an argument as to why the public interest requires a stay. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority: AS 03.05.010 AS 38.04.900 AS 38.08.110 AS 41.15.020 AS 44.37.011
AS 29.65.050 AS 38.05.020 AS 38.09.110 AS 41.17.055 AS 46.15.020
AS 29.65.120 AS 38.05.035 AS 38.50.160 AS 41.21.020 AS 46.17.030

Editor's note: The address for an appeal or request for reconsideration by personal service and by mail is: Department of Natural Resources, Commissioner's Office, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501-3561. The number for an appeal or request for reconsideration by fax is: 1-907-269-8918. The electronic mailing address for an appeal or request for reconsideration by electronic mail is: dnr_appeals@dnr.state.ak.us

11 AAC 02.040. TIMELY FILING; ISSUANCE OF DECISION. (a) To be timely filed, an appeal or request for reconsideration must be received by the commissioner's office

within 20 calendar days after issuance of the decision, as determined under (c) or (d) of this section, unless another period is set by statute, regulation, or existing contract. If the 20th day falls on a day when the department is officially closed, the appeal or request for reconsideration must be filed by the next working day.

(b) An appeal or request for reconsideration will not be accepted if it is not timely filed.

(c) If the appellant is a person to whom the department delivers a decision by personal service or by certified mail, return receipt requested, issuance occurs when the addressee or the addressee's agent signs for the decision. If the addressee or the addressee's agent neglects or refuses to sign for the certified mail, or if the address that the addressee provided to the department is not correct, issuance by certified mail occurs when the decision is deposited in a United States general or branch post office, enclosed in a postage-paid wrapper or envelope, addressed to the person's current address of record with the department, or to the address specified by the appellant under 11 AAC 02.030(a)(11).

(d) If the appellant is a person to whom the department did not deliver a decision by personal service or certified mail, issuance occurs

(1) when the department gives public notice of the decision; or

(2) if no public notice is given, when the decision is signed; however, the department may state in the decision a later date of issuance and the corresponding due date for any appeal or request for reconsideration.

(e) The date of issuance constitutes delivery or mailing for purposes of a reconsideration request under AS 44.37.011(d) or AS 44.62.540(a). (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.050. HEARINGS. (a) The department will, in its discretion, hold a hearing when questions of fact must be resolved.

(b) The hearing procedure will be determined by the department on a case-by-case basis. As provided in 11 AAC 02.030(a)(13), any request for special procedures must be included with the request for a hearing.

(c) In a hearing held under this section

(1) formal rules of evidence need not apply; and

(2) the hearing will be recorded, and may be transcribed at the request and expense of the party requesting the transcript. (Eff. 11/7/90, Register 116)

Authority: AS 03.05.010 AS 38.04.900 AS 38.09.110 AS 41.17.055 AS 46.17.030
AS 29.65.050 AS 38.05.020 AS 38.50.160 AS 41.21.020
AS 29.65.120 AS 38.08.110 AS 41.15.020 AS 46.15.020

11 AAC 02.060. STAYS; EXCEPTIONS. (a) Except as provided in (c) and (d) of this section, timely appealing or requesting reconsideration of a decision in accordance with this chapter stays the decision during the commissioner's consideration of the appeal or request for reconsideration. If the commissioner determines that the public interest requires removal of the stay, the commissioner will remove the stay and allow all or part of the decision to take effect on the date set in the decision or a date set by the commissioner.

(b) Repealed 9/19/2001.

(c) Unless otherwise provided, in a statute or a provision of this title, a decision takes effect immediately if it is a decision to

(1) issue a permit, that is revocable at will;

(2) approve surface operations for a disposal that has already occurred or a property right that has already vested; or

(3) administer an issued oil and gas lease or license, or an oil and gas unit agreement.

(d) Timely appealing or requesting reconsideration of a decision described in (c) of this section does not automatically stay the decision. However, the commissioner will impose a stay, on the commissioner's own motion or at the request of an appellant, if the commissioner determines that the public interest requires it.

(e) A decision takes effect immediately if no party is eligible to appeal or request reconsideration and the commissioner waives the commissioner's right to review or reconsider the decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority: AS 03.05.010 AS 38.04.900 AS 38.08.110 AS 41.15.020 AS 46.15.020
AS 29.65.050 AS 38.05.020 AS 38.09.110 AS 41.17.055 AS 46.17.030

11 AAC 02.070. WAIVER OF PROCEDURAL VIOLATIONS. The commissioner may, to the extent allowed by applicable law, waive a requirement of this chapter if the public interest or the interests of justice so require. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority: AS 03.05.010 AS 29.65.120 AS 38.05.035 AS 38.50.160 AS 41.21.020
AS 03.10.020 AS 38.04.900 AS 38.08.110 AS 41.15.020 AS 46.15.020
AS 29.65.050 AS 38.05.020 AS 38.09.110 AS 41.17.055 AS 46.17.030

11 AAC 02.080. DEFINITIONS. Repealed. (Eff. 11/7/90, Register 116; repealed 9/19/2001, Register 159)

Editor's note: The subject matter formerly set out at 11 AAC 02.080 has been moved to 11 AAC 02.900.

11 AAC 02.900. DEFINITIONS. In this chapter,

(1) "appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign;

(2) "appellant" means a person who files an appeal or a request for reconsideration.

(3) "commissioner" means the commissioner of natural resources;

(4) "decision" means a written discretionary or factual determination by the department specifying the details of the action to be allowed or taken;

(5) "department" means, depending of the particular context in which the term is used, the Department of Natural Resources, the commissioner, the director of a division within the Department of Natural Resources, or an authorized employee of the Department of Natural Resources;

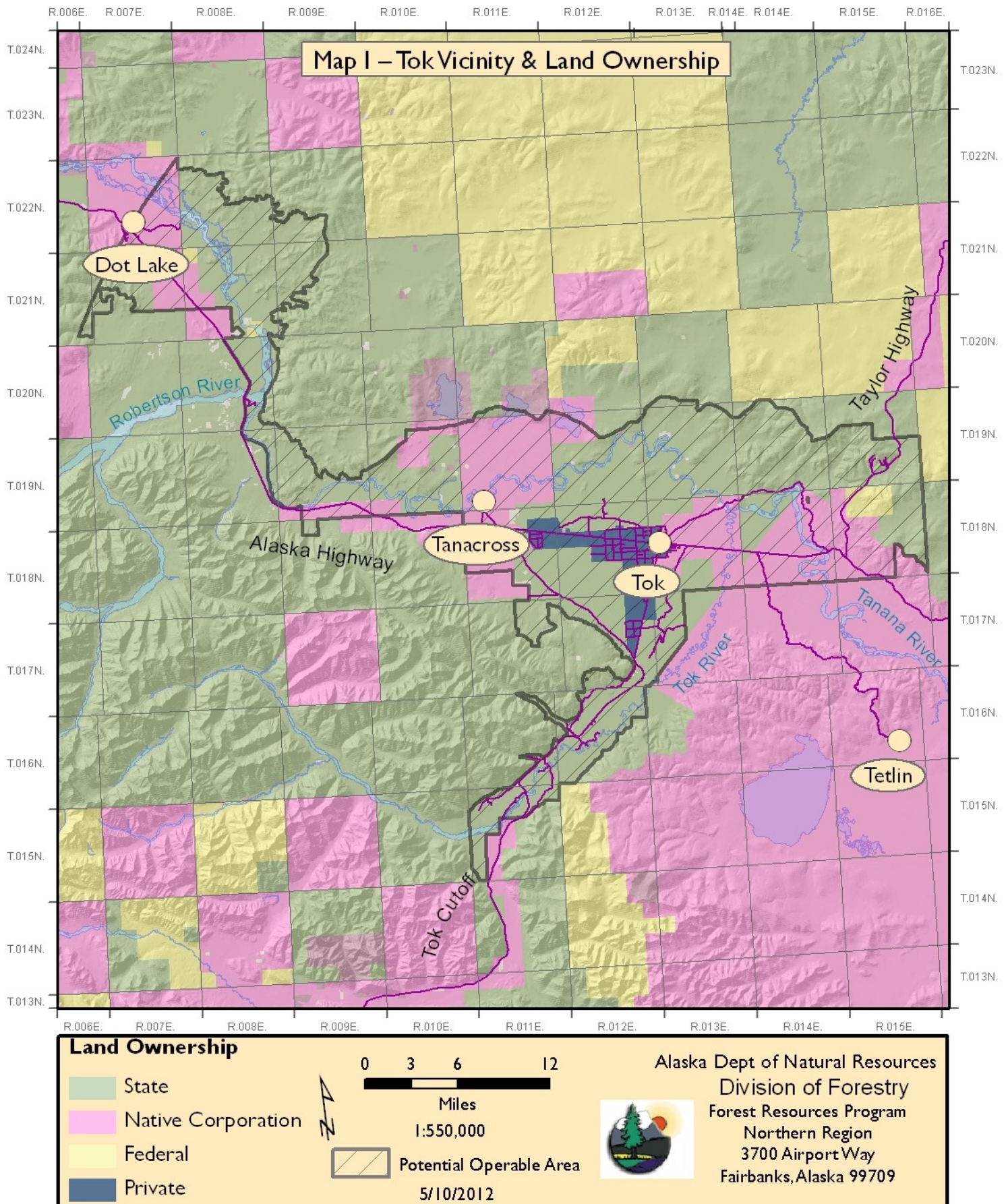
(6) "request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 44.62.540
	AS 29.65.050	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.15.020
	AS 29.65.120	AS 38.08.110	AS 41.15.020	AS 44.37.011	AS 46.17.030
	AS 38.04.900				

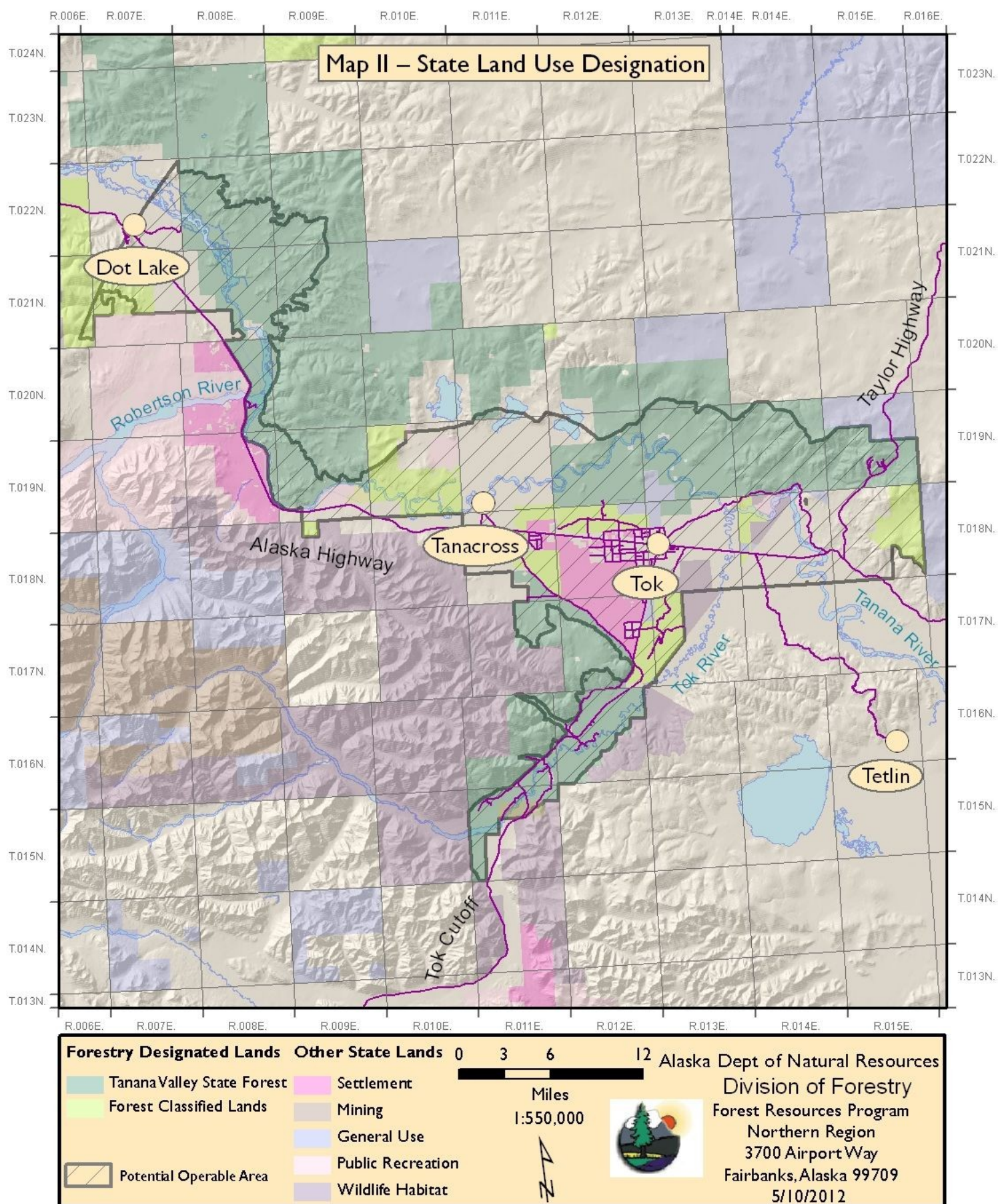
Editor's note: The subject matter of 11 AAC 02.900 was formerly located at 11 AAC 02.080. The history notes for 11 AAC 02.900 does not reflect the history of the earlier section.

XII. Maps

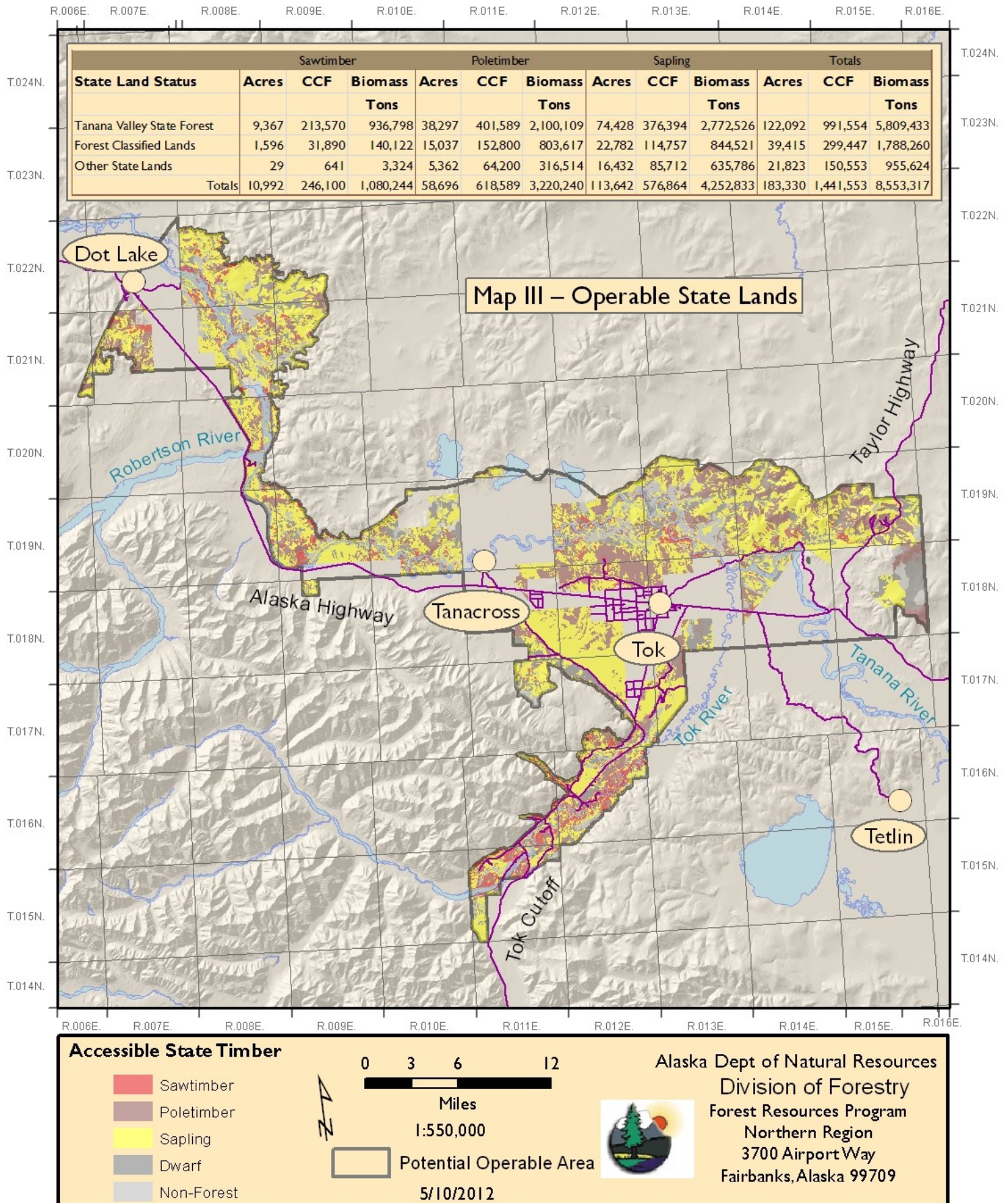
A. Map I – Tok Vicinity & Land Ownership



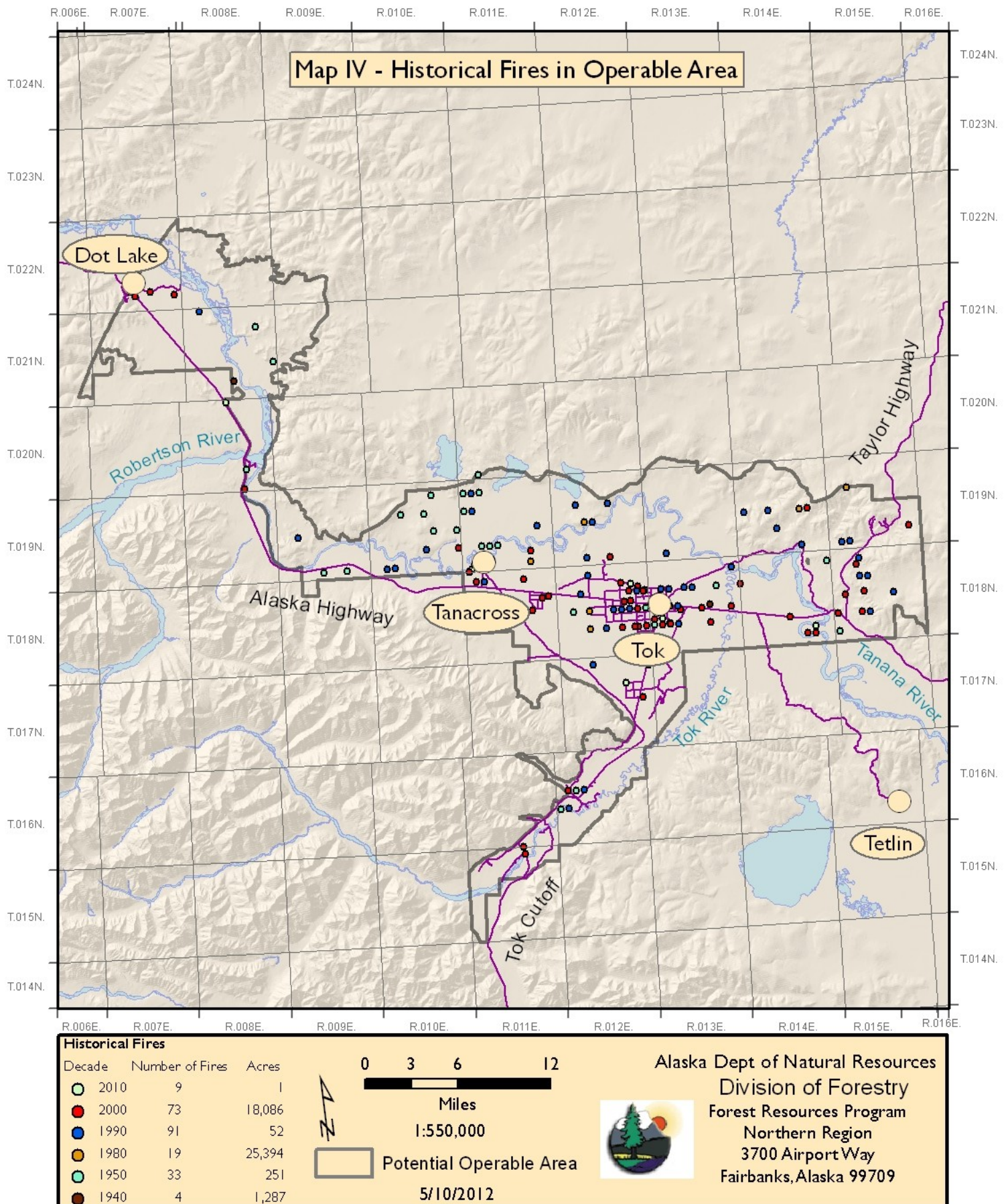
B. Map II – State Land Use Designation



C. Map III – Operable State Lands



D. Map IV – Historical Fires in Operable Area



E. Map V – Tok Transportation – Existing & Proposed

